CLAIMS

1. Synchronous electric motor (3), particularly for washing machines (1) and similar household appliances with rotary drum (2) being kinematically connected to the motor (3) by a belt and pulley link (6), of the type comprising:

a central stator (5) fixedly mounted on an axis (7);

a rotor (4) having permanent magnets (13), being outside the stator (5) and rotatably supported and overhanging on said axis (7) with at least one bearing (15) interposed; characterized in that it comprises:

a pulley (12,12a,12b) rotatably rigid with the rotor (4); and that

said rotor (4) has an essentially cylindrical cup shape with an end wall (26,36) provided with a hub (20,20a) receiving said bearing (15), on said hub (20) being inserted a pulley (12,12a,12b) rotatably integral with it.

2. Motor according to Claim 1, characterized in that said hub (20,20a) is engaged in an end section (14) of said pulley (12,12a).

3. Motor according to Claim 2, characterized in that the other end (16) of said pulley (12) is rotatably mounted on said axis (7) with a interposed relevant bearing (19).

4. Motor according to Claim 1, characterized in that at least a section of said pulley (12) has a predetermined number of grooves (17).

5. Motor according to Claim 1, characterized in that said pulley has grooves (17) throughout its length.

6. Motor according to Claim 1, characterized in that said pulley (12) is attached to said end wall (26) by using fixing means (29).

7. Motor according to Claim 1, characterized in that said hub is a sleeve (37) being integral with said end wall (36) to receive inside a pair of bearings (40,43); the pulley (42) being integral with one end of said

sleeve.

8. Motor according to Claim 7, characterized in that said pulley (12a) is removably integral with the free end of said hub (20a).

9. Motor according to Claim 1, characterized in that the diameter of said pulley is essentially equal to the diameter of the rotor (4).

10. Method for manufacturing a synchronous electric motor (3) having a central stator (5) and a permanent-magnet external rotor (4) according to the previous claims, comprising the steps of:

a. providing a casing (22) of essentially cylindrical shape, having an end wall (26) centrally provided with a hub (20,20a) or an outward projecting sleeve (37);

b. providing at least one bearing (15,38) between the hub (20,20a) or sleeve (37) and the motor-supporting axis (7);

c. attaching a pulley (12,12a,42) of the motion transmission kinematism (6) between motor and drum to said hub (20,20a) or sleeve (37).

11. Method according to Claim 10, characterized in that said pulley is also attached to said end wall (26) by fixing means (29).

12. Method according to Claim 10, characterized in that the end wall (36) is removably attached to said cylindrical casing (22).

13. Method according to Claim 10, characterized in that the pulley (12,12a,12b) is rotatably mounted on said axis (7) with a interposed relevant bearing (19,43) .

14. Method according to Claim 10, characterized in that said pulley (12a) is removably integral with the free end of said hub (20a).

15. Method according to Claim 10, characterized in that said pulley (42) is integral with one end of the sleeve (37).